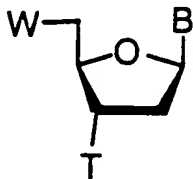
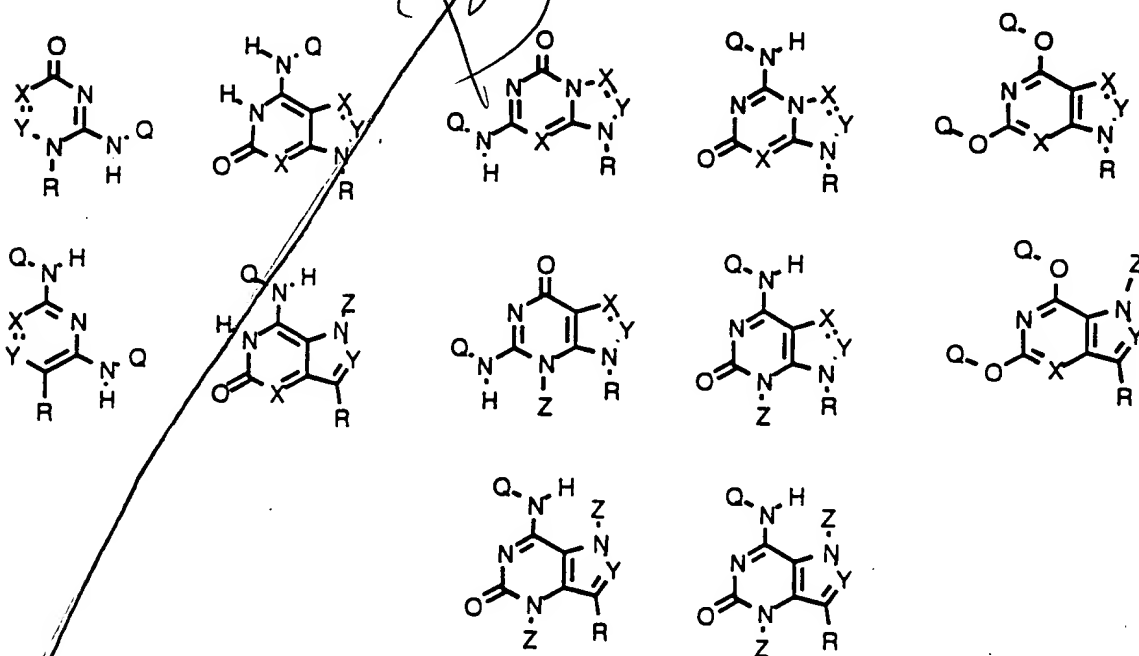


What is claimed is:

1. Compositions of matter having the formula



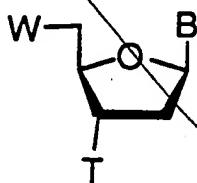
wherein T is -OP(OA)NM₂, wherein A is a protecting moiety selected from the group consisting of CH₃, CH₂CH₂CN, and CH₂CH₂-phenyl-NO₂, and M is an alkyl group, W is a protecting moiety selected from the group consisting of -OC(phenyl)₃, -OC(4-methoxyphenyl)(phenyl)₂, and -OC(phenyl)(4-methoxyphenyl)₂, and B is a heterocycle selected from the group consisting of



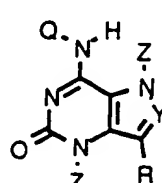
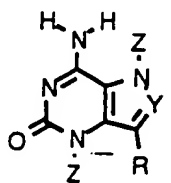
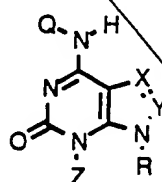
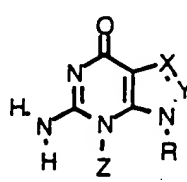
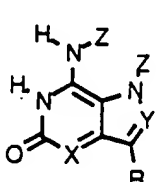
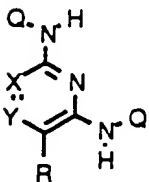
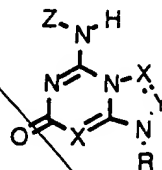
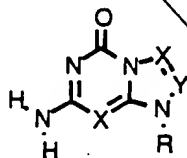
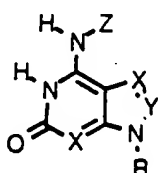
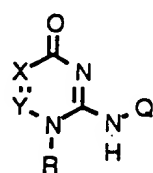
wherein -R designates the point of attachment, X is either a nitrogen atom or a carbon atom bearing a substituent Z, Z is either a hydrogen, an unfunctionalized lower alkyl, alkynyl, or alkyl-alkynyl chain, or a lower alkyl, alkynyl, or alkyl-alkynyl chain bearing a protected amino,

carboxyl, hydroxy, thiol, aryl, indole, or imidazolyl group, Y is either N or CH, the ring contains no more than three nitrogens consecutively bonded, and Q is a protecting moiety selected from a group consisting of benzoyl, *p*-*tert*butylbenzoyl, dialkylformamidyl, and *p*-nitrophenylethyl.

2. Compositions of matter having the formula

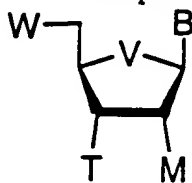


wherein T is selected from the group consisting of -H, -OH, and -OPO₃H₂, W is selected from the group consisting of -OH, -OPO₃H₂, -OP(O₂H)-OPO₃H₂, -OP(O₂H)OP(O₂H)PO₃H₂, -OPSO₂H₂, -OPS(OH)OP(O₂H)PO₃H₂, and -OP(O₂H)OP(O₂H)PSO₂H₂, and B is a heterocycle selected from the group consisting of

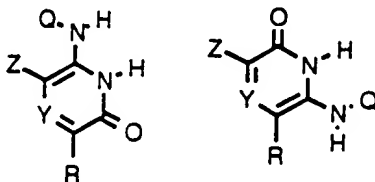


wherein -R designates the point of attachment, X is either a nitrogen atom or a carbon atom bearing a substituent Z, Z is either a hydrogen, an unfunctionalized lower alkyl, alkynyl, or alkyl-alkynyl chain, or a lower alkyl, alkynyl, or alkyl-alkynyl chain bearing a protected amino, carboxyl, hydroxy, thiol, aryl, indole, or imidazolyl group, Y is either N or CH, and the ring contains no more than three nitrogens consecutively bonded.

3. Compositions of matter having the formula



wherein V is selected from the group consisting of -H and -OZ, T is selected from the group consisting of -H, -OH, -OPO₃H₂, and -OP(OA)NM₂, wherein A is a protecting group selected from the group consisting of CH₃, CH₂CH₂CN, and CH₂CH₂-phenyl-NO₂, and M is an alkyl group, W is selected from the group consisting of -OH, -OPO₃H₂, -OP(O₂H)-OPO₃H₂, -OP(O₂H)OP(O₂H)PO₃H₂, -OC(phenyl)₃, -OC(4-methoxyphenyl)(phenyl)₂, and -OC(phenyl)(4-methoxyphenyl)₂, and B is a heterocycle selected from the group consisting of



wherein -R designates the point of attachment, X is either a nitrogen atom or a carbon atom bearing a substituent Z, Z is either a hydrogen, an unfunctionalized lower alkyl, alkynyl, or alkyl-alkynyl chain, or a lower alkyl, alkynyl, or alkyl-alkynyl chain bearing an amino,

trifluoroacetamido, carboxyl, hydroxy, thiol, aryl, indole, or imidazolyl group, Y is either N or CH, the ring contains no more than three nitrogens consecutively bonded, and Q is selected from a group consisting of hydrogen, benzoyl, *p*-*tert*butylbenzoyl, dialkylformamidyl, and *p*-nitrophenylethyl.

add
B5